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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,548	09/22/2003	Jiann-Hsing Chen	81621/LPK	9928

7590

04/22/2005

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EXAMINER

ZACHARIA, RAMSEY E

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/667,548

Applicant(s)

CHEN ET AL.

Examiner

Ramsey Zacharia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
4a) Of the above claim(s) 38-40 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3, 5-7 and 9-37 is/are rejected.
7) ☒ Claim(s) 4 and 8 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02/09/2005.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

2. Claims 38-40 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 09 February 2005.

Claim Rejections - 35 USC § 112

3. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The term "highly" in claim 17 is a relative term which renders the claim indefinite. The term "highly" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Use of the term "highly" renders the degree of crosslinking of the polydimethylsiloxane indefinite.

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Claim Rejections - 35 USC § 102

5. Claims 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Meguriya (U.S. Patent 6,261,214).

Meguriya teaches roll comprising a thermosetting (i.e. crosslinked) organopolysiloxane composition containing a hollow filler (column 2, lines 7-12). A fluoro-resin layer may be formed over the silicone layer (column 5, lines 15-23). The silicon is cured at a temperature of as low as "about 100" °C, a limit that includes values less than 100 °C (column 5, lines 24-28). The silicone has a thermal conductivity of as high as 5.0×10^{-4} cal/cm • sec • °C, i.e. about 0.12 BTU/hr/ft/°F (column 5, lines 29-31).

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-3, 5-7, and 9-37 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 20, 21, 26, and 30-32 of copending Application No. 10/667,996. Although the conflicting claims are not identical, they are not patentably distinct from each other because the only difference between the instant

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claims and those of Application No. 10/667,996 is the temperature at which the silicone is cured. A temperature below 100 °C as recited in the instant claims (e.g. 95 °C, 80 °C, or 70 °C) can still be considered an "elevated temperature."

Regarding claims 18 and 22, because the roller is to be used as a heated fusing-station roller in an electrostatographic machine, it would be obvious to one skilled in the art to provide additional internal or external heat sources as needed or desired to optimize the performance of the roller.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

8. Claims 24, 25, and 31-33 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 31 of U.S. Patent No. 6,486,441 in view of Meguriya (U.S. Patent 6,261,214).

Claim 31 of U.S. Patent No. 6,486,441 is directed to a fuser member comprising a core, a base cushion layer, and an outer layer overlying the base cushion layer. The outer layer has a thickness of as low as about 4 mils (i.e. 0.004 inch) and comprises a random copolymer of 1-50 or 60-80 mole% vinylidene fluoride, 10-90 mole% hexafluoropropylene, and 10-90 mole% tetrafluoroethylene.

Regarding instant claim 31, thermal conductivity is a material property. Since the fluoropolymer material claims in U.S. Patent No. 6,486,441 appears to be the same as that used in the instant invention, it should have the same thermal conductivity.

U.S. Patent No. 6,486,441 does not teach the specifics of the base cushion layer.

Meguriya teaches or fairly suggests a thermosetting (i.e. crosslinked) silicone composition containing a hollow filler for use in a heat fixing roll as outlined above. The silicone has a thermal conductivity of as high as 5.0×10^{-4} cal/cm • sec • °C, i.e. about 0.12 BTU/hr/ft/°F (column 5, lines 29-31). The silicone of Meguriya has desirable heat insulation properties, yields a rubber with uniform micro-cells and does not contain dangerous hydrogen blowing agents or blowing agents that can retard curing or decompose into toxic and odorous gases (column 1, lines 32-57).

One skilled in the art would be motivated to use the silicone of Meguriya as the base cushion layer of U.S. Patent No. 6,486,441 because it has desirable heat insulation properties, yields a rubber with uniform micro-cells and does not contain dangerous hydrogen blowing agents or blowing agents that can retard curing or decompose into toxic and odorous gases.

Terminal Disclaimer

9. The terminal disclaimer filed on 09 February 2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of copending Application No. 10/667,996 and U.S. Patent No. 6,486,441 has been reviewed and is NOT accepted.

a. The person who signed the terminal disclaimer is not recognized as an officer of the assignee, and he/she has not been established as being authorized to act on behalf of the assignee. See MPEP § 324.

10. An attorney or agent, not of record, is not authorized to sign a terminal disclaimer in the capacity as an attorney or agent acting in a representative capacity as provided by 37 CFR 1.34 (a). See 37 CFR 1.321(b) and/or (c).

Response to Arguments

11. Applicant's arguments filed 09 February 2005 have been fully considered but they are not persuasive.

The applicants argue that the phrase "a highly crosslinking polydimethylsiloxane" is not considered to be indefinite by those in the art and cite U.S. Patent 6,437,012 for support (claim 1 of U.S. Patent 6,437,012 is directed to a "highly crosslinked" polymer). However, this is not persuasive because the specification of U.S. Patent 6,437,012 defines "highly crosslinked" for their purposes as containing at least 8 mole% cross-linking agent and swell less than 100% in THF or dichloromethane (see column 4, lines 8-23). In contrast, the instant invention does not define what is meant by "a highly crosslinking polydimethylsiloxane" and therefore the metes and bounds of claim 17 are unclear.

Regarding claims 24 and 25, the applicants argue that the claims are directed to a pressure roller as opposed to Meguriya which is directed to a heat fixing roller.

This is not persuasive because Meguriya teach a roller that meets all of the structural limitations of instant claims 24 and 25. The designation of "pressure roller" is merely an intended use of the roller that does not add any structural features or limitations. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. It has been held that a recitation with respect to the manner in which a claimed product is intended to be employed does not differentiate the claimed product from a prior art product

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satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963).

The rejection of claims 1 and 37 (and claims dependent from them) over Meguriya has been withdrawn in view of the amendment limiting the thermal conductivity of the base cushion layer to approximately 0.2 to 0.7 BTU/hr/ft/°F. Meguriya teach a silicon composition having a conductivity of up to 5.0×10^{-4} cal/cm/s/°C (i.e. about 0.12 BTU/hr/ft/°F). Upon reconsideration and in view of the applicants arguments, a conductivity of about 0.12 BTU/hr/ft/°F does not read on approximately 0.2 BTU/hr/ft/°F. The instant specification describes the range of "approximately between 0.2 BTU/hr/ft/°F - 0.5 BTU/hr/ft/°F" as being a preferred range within the broader range of "approximately between 0.12 BTU/hr/ft/°F - 0.7 BTU/hr/ft/°F" (see page 20, lines 17-20). This supports the applicants' argument that approximately 0.12 BTU/hr/ft/°F does not read on approximately 0.2 BTU/hr/ft/°F.

Allowable Subject Matter

12. Claims 4 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter.

Claims 4 and 8 are allowable over Meguriya in view of the amendment limiting the thermal conductivity of the base cushion layer to approximately 0.2 to 0.7 BTU/hr/ft/°F for the reasons discussed above.

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Furthermore, claims 4 and 8 are not subject to an obviousness-type double patenting rejection over Application No. 10/667,996 because Application No. 10/667,996 fails to teach or fairly suggest a concentration of filler of between approximately 15 - 40 wt%.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

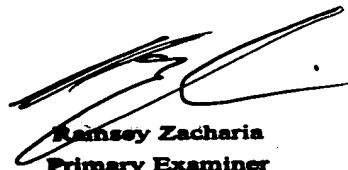
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Zacharia whose telephone number is (571) 272-1518. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached at (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ramsey Zacharia
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